

Appl. No. 10/780,872
Response dated January 26, 2005
Reply to Office action of September 26, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claims 1-21 (canceled)

22. (Currently amended) A method of correcting anatomical alignment of a patient's ankle bone structure ~~as defined in claim 21 and further~~ comprising:

inserting an implant into a sinus tarsi of a patient,

said implant comprising,

a first member having an outer surface generally configured in the shape of a frustum of right cone having a circular base portion and a circular top portion with said top portion diameter less than said base portion diameter, and said first member being inserted into a sinus region of the patient's sinus tarsi,

a second member, axially connected to the circular top portion of the first member and having an outer surface generally configured in the shape of a cylinder and having an outer diameter approximately equal to the diameter of the top portion of said first member and being inserted into a canalis tarsi region of the patient's sinus tarsi, and

a third member axially connected to said base portion of said first member, said third member having an outer surface generally configured in the shape of a cylinder with an outer diameter approximately equal to the diameter of the base portion of said first member and being inserted into a sinus region of the patient's sinus tarsi,

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wherein said implanted members maintain said sinus tarsi in an anatomically correct alignment and minimize a tendency for abnormal motion between the patent's talus and calcaneus in the patient's ankle bone structure.

23. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 22 wherein said third member further comprises:

at least one peripheral channel fashioned about said third member outer surface to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said implant within the patient's sinus tarsi.

24. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 23 wherein said at least one peripheral channel further comprises:

at least a first and a second peripheral channel being axially spaced along the outer surface of said third member to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said implant within the patient's sinus tarsi.

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25. (Currently amended) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 22 ~~21~~ wherein said second member further comprises:

a channeled surface fashioned in said second member outer surface to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said second member within the canalis tarsi region of the patient's sinus tarsi.

26. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 25 wherein said channeled surface further comprises:

a continuous thread fashioned in said second member outer surface to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said second member within the canalis tarsi region of the patient's sinus tarsi.

27. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 26 wherein said implant further comprises:

a lateral end fashioned with a recess configured to accept a tool so that when the tool is inserted into the recess the tool is operable to advance the implant into a proper position.

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28. (Currently amended) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 22 ~~21~~ wherein said sinus tarsi implant is composed of a composition comprising:

a medical grade polymer suitable for implantation in the patient without adverse reactions.

29. (Currently amended) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 22 ~~21~~ wherein said sinus tarsi implant is composed of a composition comprising:

a polymer selected from the group consisting of high molecular weight polyethylene, polyoxymethylene, DELRIN, polyetheretherketone (PEEK), polyetherketoneketone (PEKK), polymethylmethacrylate (PMMA) polytetrafluoroethylene (PTFE) and DELRIN AF.

30. (Currently amended) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 22 ~~21~~ wherein said implant further comprises:

a longitudinal bore traversing the entire length of the implant along a central longitudinal axis and fashioned to allow placement of the implant on a guide to facilitate proper surgical implantation.

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31. (Currently amended) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 22 ~~24~~ and further comprising:

said second member outer diameter is in a range from 0.6 cm to 1.1 cm.

32. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure comprising:

inserting an implant into a sinus tarsi of a patient,

said implant comprising,

a first member having an outer surface generally configured in the shape of a right conical frustum having a base portion and a top portion, and being inserted into a sinus region of the patient's sinus tarsi;

a second member, axially connected to the top of said first member and having an outer surface generally configured in the shape of a cylinder and having an outer diameter approximately equal to the top portion of said first member and being inserted into a canalis tarsi region of the patient's sinus tarsi; and

a third member, axially connected to the base of said first member and having an outer surface generally configured in the shape of a cylinder and being inserted into the sinus region of the patient's sinus tarsi;

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wherein said first, second and third members maintain said sinus tarsi in an anatomically correct alignment and minimize a tendency for abnormal motion between the patent's talus and calcaneus thereby correcting deformities in the patient's ankle bone structure.

33. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 32 wherein said third member further comprises:
at least one peripheral channel fashioned about said third member outer surface to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said implant within the patient's sinus tarsi.

34. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 32 wherein said second member further comprises:
a channeled surface fashioned in said second member outer surface to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said second member within the canalis tarsi region of the patient's sinus tarsi.

35. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 34 wherein said channeled surface further comprises:

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a continuous thread fashioned in said second member outer surface to engage surrounding tissue and permit fibrous tissue ingrowth to anchor said second member within the canalis tarsi region of the patient's sinus tarsi.

36. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 35 wherein said implant further comprises:

a recess fashioned within a lateral end of said implant and being configured to accept a tool so that when the tool is inserted into the recess the tool is operable to advance the implant into a proper position.

37. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 32 wherein said sinus tarsi implant is composed of a composition comprising:

a medical grade polymer suitable for implantation in the patient without adverse reactions.

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38. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 32 wherein said sinus tarsi implant is composed of a composition comprising:

a polymer selected from the group consisting of high molecular weight polyethylene, polyoxymethylene, DELRIN, polyetheretherketone (PEEK), polyetherketoneketone (PEKK), polymethylmethacrylate (PMMA) polytetrafluoroethylene (PTFE) and DELRIN AF.

39. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 32 and further comprising:

a longitudinal bore traversing the entire length of the implant along the implant longitudinal central axis and fashioned to allow placement of the implant on a guide to facilitate proper surgical implantation.

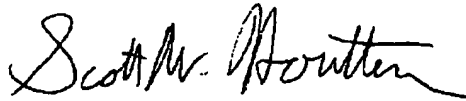
40. (Previously presented) A method of correcting anatomical alignment of a patient's ankle bone structure as defined in claim 32 and further comprising:

said second member outer diameter is in a range from 0.6 cm to 1.1 cm.

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Claims 1-21 have been canceled. Claim 22 has been rewritten in independent form and claims depending from claim 21 now depend from claim 22. Accordingly, claims 22-40 are currently pending. Applicant believes these claims are in condition for allowance. If the Examiner requires a telephone conference in order to facilitate prosecution, kindly call Applicant's counsel at the telephone number below.

If additional fees are required, the Commissioner is hereby authorized to charge any additional fees to deposit account number 11-0853.



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